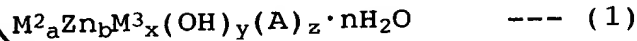


CLAIMS

- 21B B1
1. A composite metal polybasic salt having a chemical composition represented by the following general formula (1),



- wherein M^2 is a divalent metal other than Zn, M^3 is a trivalent metal, A is an inorganic or organic anion, and a, b, x, y and z are numbers satisfying the following formulas,

- i) $0 \leq a, 0 < b$
 ii) $3x + 2(a + b) - y - mz = 0$ (wherein m is a valency of anion A),
 iii) $0.3 \leq (a + b)/x \leq 2.5$,
 iv) $1.5 \leq y/(x + a + b) \leq 3.0$, and
 v) $4.0 \leq (x + a + b)/z \leq 20.0$, and
 n is a number of not larger than 7,

- exhibiting diffraction peaks at $2\theta = 2$ to 15° , $2\theta = 19.5$ to 24° and $2\theta = 33$ to 50° , and a single peak at $2\theta = 60$ to 64° in the X-ray diffraction (Cu- α).

2. A composite metal polybasic salt according to claim 1, wherein an X-ray diffraction (Cu- α) peak at $2\theta = 33$ to 50° is a single peak.

3. A composite metal polybasic salt according to claim 1 or 2, wherein the divalent metal (M^2) in said formula is magnesium.

4. A composite metal polybasic salt according to any one of claims 1 to 3, wherein the trivalent metal (M^3) in said formula is aluminum.

5. A composite metal polybasic salt according to any one of claims 1 to 4, wherein the anions (A) in said formula are sulfuric acid ions.

6. A composite metal polybasic salt according to any one of claims 1 to 4, wherein the anions (A) in said formula are carbonic acid ions.

7. A composite metal polybasic salt according to any one of claims 1 to 4, wherein the anions (A) in said formula are silicic acid ions.

8. A composite metal polybasic salt according to any one of claims 1 to 4, wherein the anions (A) in said formula are organocarboxylic acid ions.

9. A composite metal polybasic salt according to any one of claims 1 to 4, wherein the anions (A) in said formula are phosphoric acid ions.

10. A composite metal polybasic salt according to any one of claims 1 to 9, wherein said composite metal polybasic salt has a laminate asymmetric index (Is) defined by the following formula (2),

$$Is = \tan \theta_2 / \tan \theta_1 \quad \text{--- (2)}$$

wherein θ_1 is an angle subtended by a peak perpendicular in the X-ray diffraction peak of a predetermined spacing and a peak tangent on the narrow angle side, and θ_2 is an angle subtended by the peak perpendicular at the above peak and a peak tangent on the wide angle side,

which is not smaller than 1.5 at a peak of $2\theta = 33$ to 50° .

11. A method of preparing a composite metal polybasic salt by reacting a water-soluble salt of a trivalent metal with an oxide, a hydroxide or a water-soluble salt of a divalent metal including zinc as an essential component under the conditions of a pH of from 3.8 to 9.0 and a temperature of not lower than 50°C and, if necessary, executing the ion exchange in the presence of an acid or a soluble salt of acid.

12. An additive for resins comprising a composite metal polybasic salt of any one of claims 1 to 10.

13. A heat insulator comprising a composite metal polybasic salt of any one of claims 1 to 10.

14. An anion-exchanger comprising a composite metal

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polybasic salt of any one of claims 1 to 10.

15. An anion-exchanger according to claim 14, wherein the anions of the composite metal polybasic salt are sulfuric acid ions.

5
Add
a1

10

Add a2

15

20

25

30

35